FIBERS SITE GROUP

March 10, 2017

Via Email Electronic Copy

Adalberto Bosque, PhD, MBA, REM, CEA
Response and Remediation Branch
U.S Environmental Protection Agency
City View Plaza II - Suite 7000
48 RD, 165 Km. 1.2
Guaynabo, PR 00968-8069

Subject: RD/RA Monthly Report – February 2017
Fibers Public Supply Wells Site
Guayama, Puerto Rico

Dear Mr. Bosque:

On behalf of the Fibers Public Supply Wells Site Settling Defendants, we are submitting the attached RD/RA Monthly Report prepared pursuant to the Consent Decree (Civil Action No. 92-2486) in the matter of *Unites States v. Anaquest Caribe, Inc. et al*, Section IX, Paragraph 30, Reporting Requirements.

Please feel free to contact Mr. James Kirschner of ARCADIS at (602) 797-4519 or me at (724) 544-4874 if you have any questions or comments regarding this submittal.

Sincerely,

Joe Biss, CHMM
Fibers Site Group Project Coordinator
EHS Support LLC

Copies:

Chief, New York/Caribbean Superfund Branch, Attn. Mel Hauptman- via email only
Ms. Evelyn Rivera-Ocasio, Assistant Regional Counsel – Caribbean Programs – via email only
Chief, Environmental Enforcement Division, U.S. Department of Justice (DOJ #90-11-2-768)
Amarilis Rodriguez Mendez, State Remedial Project Manager, Puerto Rico Environmental Quality Board - via email only
Ms. Katherine Mishkin, Hydrogeologist, USEPA Superfund Technical Support Section – via email only
Ms. Enid Diaz, Departmento de Recursos Naturales y Ambientales
Mr. Jorge Morales, PRIDCO - via email only
Mr. Joel Melendez Rodriguez, PRIDCO - via email only
Ms. Ana Palou Balsa, PRIDCO – via email only
Mr. Dan Vineyard, Jackson Walker- via email only
James Kirschner, Arcadis - via email only

RD/RA Monthly Report – February 2017
Fibers Public Supply Wells Superfund Site
Guayama, Puerto Rico

(a) Description of actions which have been taken toward achieving compliance with this Decree.

Fibers Air Stripping System

The Fibers groundwater extraction and treatment system (GWETS) was operational for approximately 97% of the time during February 2017. The GWETS had one automated shut down due to a power outage and two shut downs due to GWETS maintenance, and was restarted at the Site the same business day.

A summary of the daily treatment system operating records is presented in Table 1. The GWETS average flow rates are depicted on Figure 1. The GWETS operated at an average flow rate of 343 gallons per minute (gpm) and treated approximately 14.83 million gallons of water in February 2017. To date (since May 1999), approximately 3.08 billion gallons of water have been treated at the Fibers Site.

(b) Summary of all sampling results and tests, and all other data received or generated by Settling Defendants.

Groundwater influent and effluent samples were collected on February 2, 2017 and analyzed by Pace Analytical Services, Inc. (Pace). A summary of the February 2, 2017 GWETS Laboratory Analytical Results is provided in Table 2. A summary of influent groundwater concentrations of tetrachloroethene (PCE) and total haloethers from the GWETS is depicted on Figures 2 and 3, respectively.

Arcadis U.S., Inc. (Arcadis) performed a data quality assessment (validation) of the laboratory analytical results reported by Pace. Results are summarized in the Data Review Report #27245R and provided as Attachment 1. A copy of the chain of custody and annotated sample analysis data sheets are provided as an attachment to the Data Review Report. A copy of the complete Laboratory Analytical Report #2049726 is provided as Attachment 2. A copy of the GWETS Sampling and Monitoring Field Form, documenting sample collection information, individual flow rates at the three groundwater extraction wells and treatment system parameters is provided as Attachment 3.

(c) List of all work plans, plans and other deliverables completed and submitted.

None for this reporting period.

(d) Description of all actions, including, but not limited to, data collection and implementation of work plans, which are scheduled for the next six weeks.

The second semi-annual groundwater monitoring and sampling event of 2016 was completed in December 2016. Complete data packages were received from the laboratory and have been validated. The second semi-annual groundwater monitoring and sampling report of 2016 is anticipated to be submitted to the United States Environmental Protection Agency (USEPA) in the next six weeks.

The first semi-annual groundwater monitoring and sampling event of 2017 is expected to start in the next six weeks. Once the sampling event is complete and data packages are received from the laboratory and validated, the semi-annual groundwater report will be submitted to the USEPA.

Environmental Resource Technologies (ERTEC) is planning a soil vapor extraction pilot study at the Baxter-Guayama facility on the Fibers Site. The pilot test is now anticipated to commence in May 2017.

Arcadis conducted the second phase of a subsurface soil investigation on the Wyeth LLC leased portion of the Site in February 2017. Upon completion of the data validation, a summary of results will be submitted to the USEPA.

(e) Information regarding the percentage completion, unresolved delays encountered or anticipated.

Construction Activities – 100% complete.
System Start-Up – 100% complete.
Start-Up Performance Monitoring – 100% complete.
Long-Term Operation & Maintenance Period – In progress.

(f) List of any modification to work plans or other schedules the Settling Defendants have proposed.

None.

(g) Description of activities undertaken in support of the Community Relations Plan.

No support activities have been requested for the next planning period.

(h) Actions undertaken to address outside parties concerns.

No concerns from outside parties were encountered during this reporting period.

Tables

Table 1
Summary of Daily Treatment System Operating Records - February 2017
Fibers Public Supply Wells Superfund Site
Guayama, Puerto Rico

Recording Date	Influent Flow (gpm) [1]	Effluent Flow (gpm) [2]	RW-2 (gpm) [3]	RW-4 (gpm) [4]	RW-5 (gpm) [5]	pH [6]	Comments
2/1/2017	356	405	115	165	80	8.2	
2/2/2017	354	402	115	163	80	8.2	
2/3/2017	351	400	115	160	80	8.2	
2/4/2017	351	399	115	160	80	8.2	
2/5/2017	351	399	115	160	80	8.2	
2/6/2017	220	250	73	101	51	8.2	GWETS maintenance.
2/7/2017	351	400	115	160	80	8.2	
2/8/2017	351	400	115	160	80	8.2	
2/9/2017	335	371	110	153	77	7.5	Power outage.
2/10/2017	351	400	115	160	80	8.2	
2/11/2017	351	400	115	160	80	8.2	
2/12/2017	351	401	115	160	80	8.2	
2/13/2017	352	402	115	160	80	8.2	
2/14/2017	350	400	115	160	80	8.2	
2/15/2017	351	401	115	160	80	8.2	
2/16/2017	351	402	115	160	80	8.1	
2/17/2017	351	401	115	160	80	8.1	
2/18/2017	351	401	115	160	80	8.1	
2/19/2017	351	402	115	160	80	8.1	
2/20/2017	351	402	115	160	80	8.1	
2/21/2017	263	302	87	121	61	NR	GWETS maintenance.
2/22/2017	351	402	115	160	80	NR	
2/23/2017	346	402	110	160	80	NR	
2/24/2017	350	402	115	160	80	NR	
2/25/2017 [7, 8]	350	402	115	160	80	NR	
2/26/2017 [7, 8]	350	402	115	160	80	NR	
2/27/2017 [7, 8]	350	402	115	160	80	NR	
2/28/2017 [7, 8]	350	402	115	160	80	NR	
Monthly Average	343	391	112	157	78	8.1	

Notes:

Flow rates are 24-hour daily average.

gpm = gallons per minute.

[1] = Recorded from instrument FIT-101.

[2] = Recorded from instrument FIT-301.

[3] = Recorded from instrument RW2 FIT.

[4] = Recorded from instrument RW4 FIT.

[5] = Recorded from instrument RW5 FIT.

[6] = Recorded from instrument pHIT-201A.

[7] = Influent flow meter reading error; used average flow rate from 2/24/2017 (similar RW flow rates).

[8] = Effluent flow meter reading error; used average flow rate from 2/24/2017 (similar RW flow rates).

NR = no reading. *On February 21, 2017, the air stripper sump was down for maintenance and the pH probe was damaged beyond repair. Therefore, no system pH readings were recorded from February 21-28 as indicated on Table 1. Two new pH probes (one primary and one backup) have been ordered and the primary pH probe should be installed by mid-March.*

Table 2
Summary of Treatment System Laboratory Analytical Results
February 2017
Fibers Public Supply Wells Superfund Site
Guayama, Puerto Rico

Fibers Groundwater Extraction and Treatment System

Laboratory analytical results for water samples collected at the influent and effluent sample tap locations from the Fibers Groundwater Extraction and Treatment System on February 2, 2017 are presented below. The system average effluent flow rate at the time the samples were collected was 409 gallons per minute (gpm). Sample results indicate that the treatment system is operating in compliance with operating parameters pursuant to the Consent Decree.

	VOC (µg/L)			
	Sample ID			
Compound	EFF-20170202	EFFDUP-20170202	INF-20170202	TB-20170202
Tetrachloroethene	ND	ND	6.0	ND
Trichloroethene	ND	ND	ND	ND
Cis-1,2-dichloroethene	ND	ND	ND	ND
2-Butanone (MEK)	2.3	2.8	ND	ND
Enflurane	ND	ND	1.6	ND
Haloether 229	ND	ND	14.8	ND
Haloether 406	ND	ND	ND	ND
Haloether 508	ND	ND	32.7	ND
Haloether 528	ND	ND	ND	ND
Halomar	ND	ND	ND	ND
Isoflurane	ND	ND	69.1	ND
Total Haloethers	ND	ND	118	ND
Acetone	15.5	15.7	28.7	36.5 J+
Other VOC	ND	ND	ND	ND

Notes:
VOC = volatile organic compounds.
µg/L = micrograms per liter.
EFF = effluent sample.
EFFDUP = effluent duplicate sample.
INF = influent sample.
TB = trip blank.
ND = not detected at or above laboratory reporting limit.
J+ = The compound was positively identified; however, the associated numerical value is an estimated concentration only (potential high bias).

Figures

Figure 1
Fibers Public Supply Wells Superfund Site
Summary of Treatment System Flow Rates

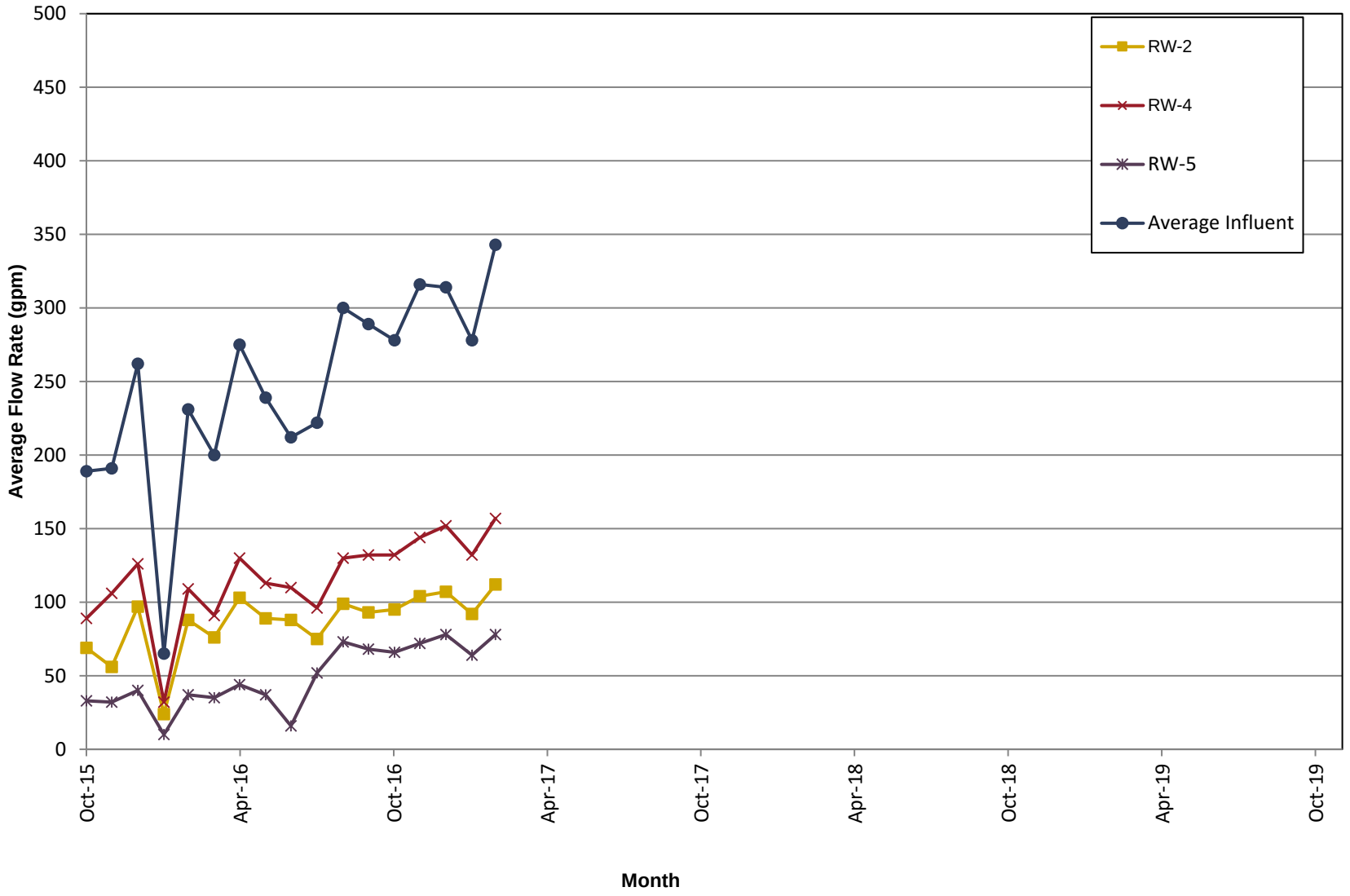


Figure 2
Fibers Public Supply Wells Superfund Site
Treatment System Influent -
Tetrachloroethene (PCE) Concentrations

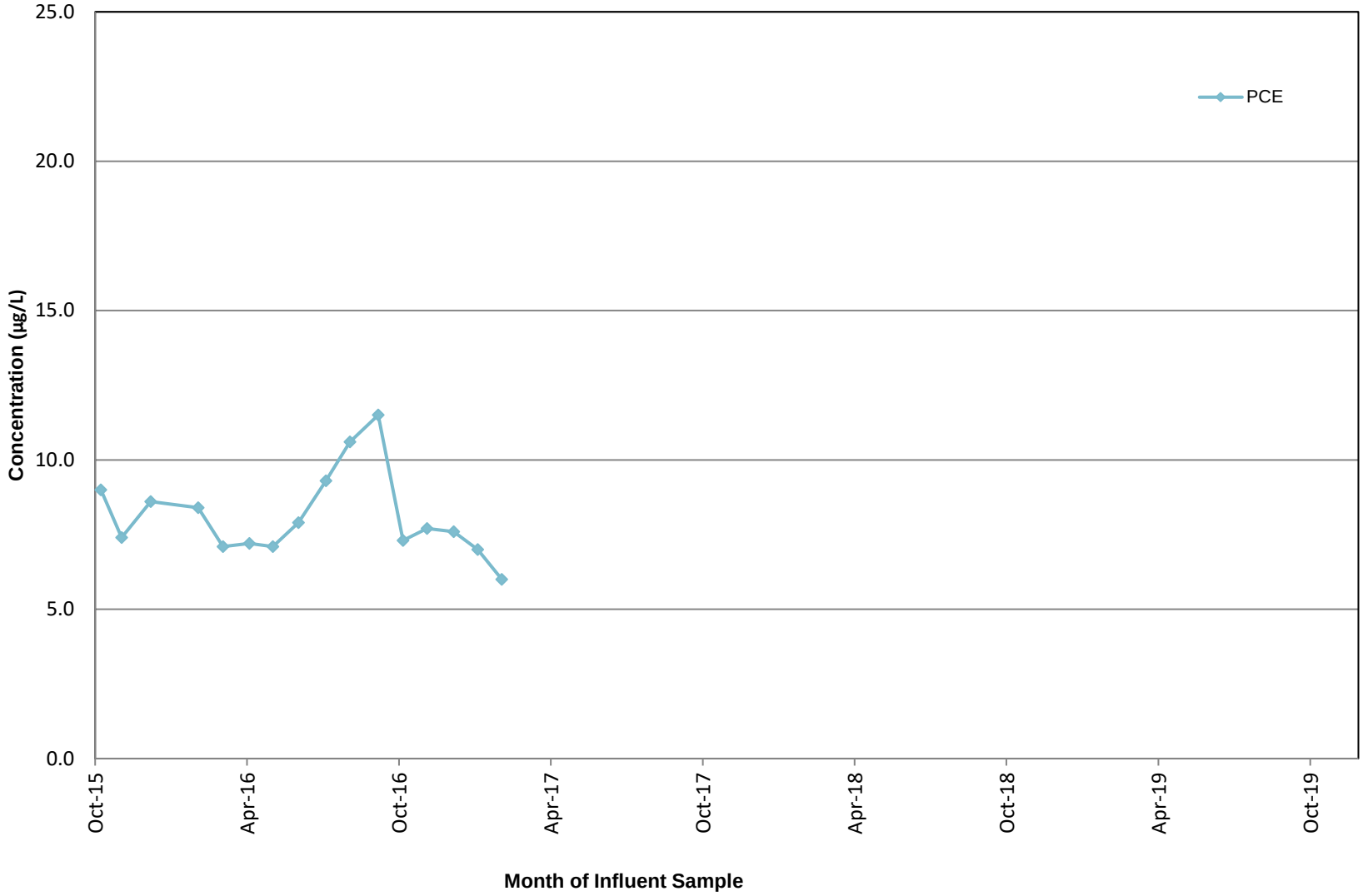
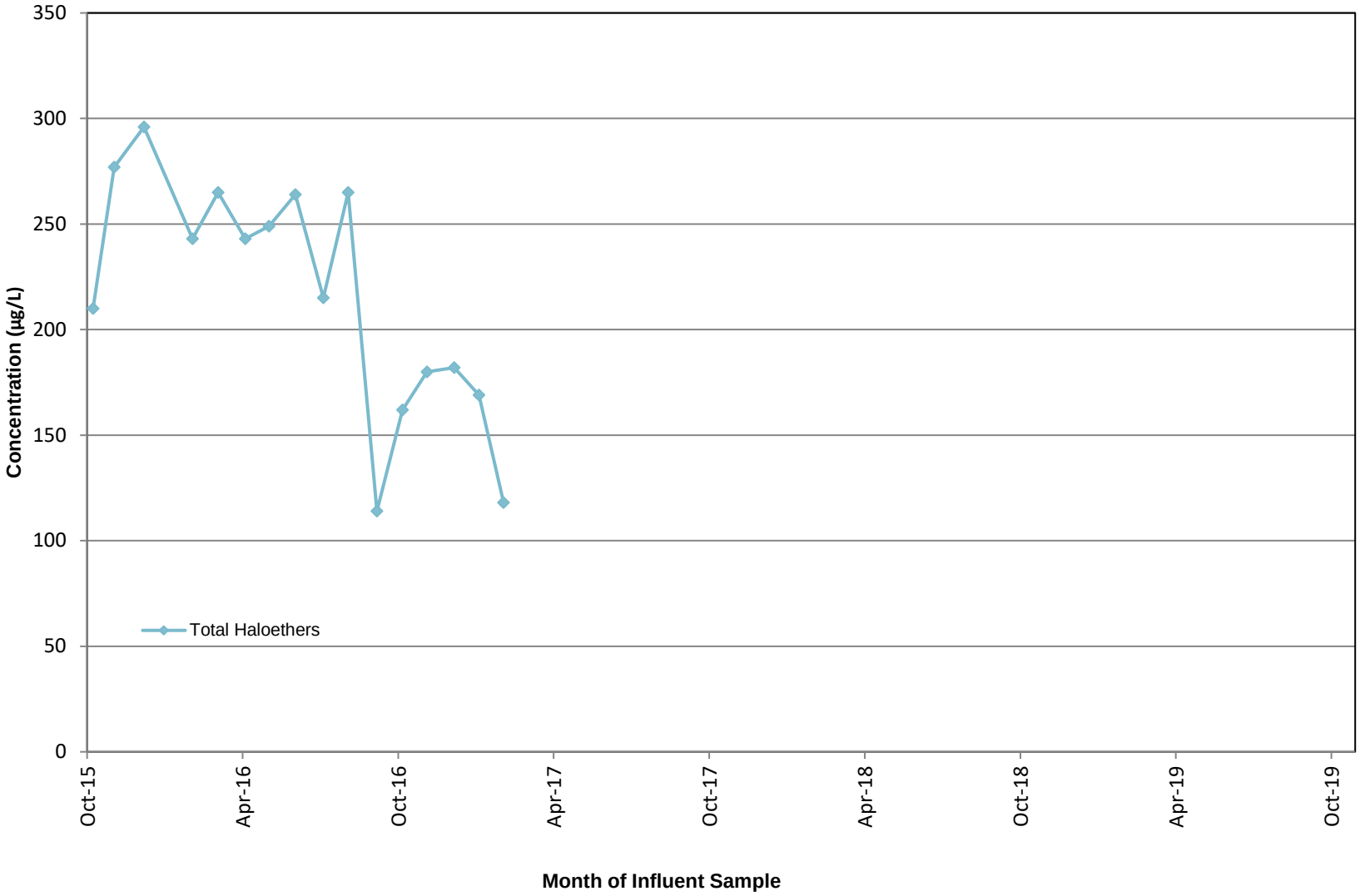


Figure 3
Fibers Public Supply Wells Superfund Site
Treatment System Influent -
Total Haloethers Concentrations



Attachment 1
Data Review Report #27245R

ARCADIS Design & Consultancy for natural and built assets

Fibers Group

Data Review

GUAYAMA, PUERTO RICO

Volatiles Analyses

SDG #2049726
Analyses Performed By:
Pace Analytical Services, Inc.
New Orleans, Louisiana

Report: #27245R
Review Level: Tier II
Project: CO001911.0003.1605A

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #2049726 for samples collected in association with the Fibers Group Site. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Included with this assessment are the validation annotated sample result sheets and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	TPH	MET	MISC
TB-20170202	2049726001	Water	02/02/2017		X				
INF-20170202	2049726002	Water	02/02/2017		X				
EFF-20170202	2049726003	Water	02/02/2017		X				
EFFDUP-20170202	2049726004	Water	02/02/2017	EFF-20170202	X				

Note:

1. The matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on sample location EFF-20170202.

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is

that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cool to <6 °C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cool to <6 °C.

s.u. Standard units

All samples were analyzed within acceptable holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the reporting limit (RL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the RL, with the exception of the compound Acetone. The associated trip blank (TB) was stored on-site prior to the sampling of site locations. Therefore, only the associated method blank was used to evaluate process blank contamination. Due to the storage of the TB, the associated result of this sample has been qualified as biased high (J+).

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
EFF-20170202	Carbon disulfide	>UL	AC
	Methoxyflurane		
	o-Xylene	< LL but > 10%	< LL but > 10%
	Styrene	<10%	<10%
	Acrolein		
	m&p-Xylene		

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
EFF-20170202	Carbon disulfide
	Bromomethane
	Chloroethane
	Chloromethane
	Vinyl chloride

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
EFF-20170202/ EFFDUP-20170202	Acetone	15.5	15.7	AC
	2-Butanone (MEK)	2.3	2.8	AC

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

7. System Performance and Overall Assessment

Note: The laboratory qualified all Acetone results with a C9 qualifier to indicate that this compound is a “Common Laboratory Contaminant”. This qualifier was removed for reporting purposes.

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment/Field blanks					X
C. Trip blanks		X	X		
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD Precision RPD		X	X		
Field/Laboratory Duplicate Sample RPD		X		X	
Surrogate Spike %R		X		X	
Dilution Factor		X		X	
Moisture Content					X

%R Percent recovery
RPD Relative percent difference
%RSD Relative standard deviation
%D Percent difference

VALIDATION PERFORMED BY: Joseph C. Houser

SIGNATURE: 

DATE: February 27, 2017

PEER REVIEW: Dennis Capria

DATE: March 3, 2017

CHAIN OF CUSTODY/
ANNOTATED SAMPLE ANALYSIS DATA SHEETS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

ANALYTICAL RESULTS

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Sample: TB-20170202 **Lab ID: 2049726001** Collected: 02/02/17 00:00 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	**36.5**	ug/L	4.0	1		02/07/17 17:54	67-64-1	~~C9~~ J+
Acrolein	ND	ug/L	8.0	1		02/07/17 17:54	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		02/07/17 17:54	107-13-1	
Benzene	ND	ug/L	1.0	1		02/07/17 17:54	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		02/07/17 17:54	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/07/17 17:54	75-25-2	
Bromomethane	ND	ug/L	1.0	1		02/07/17 17:54	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		02/07/17 17:54	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		02/07/17 17:54	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		02/07/17 17:54	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/07/17 17:54	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/07/17 17:54	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/07/17 17:54	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/07/17 17:54	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		02/07/17 17:54	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		02/07/17 17:54	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/07/17 17:54	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/07/17 17:54	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		02/07/17 17:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 17:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 17:54	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/07/17 17:54	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 17:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 17:54	10061-02-6	
Enflurane	ND	ug/L	1.0	1		02/07/17 17:54	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		02/07/17 17:54	100-41-4	
Haloether 229	ND	ug/L	1.0	1		02/07/17 17:54		
Haloether 406	ND	ug/L	1.0	1		02/07/17 17:54		
Haloether 421	ND	ug/L	1.0	1		02/07/17 17:54		
Haloether 427	ND	ug/L	1.0	1		02/07/17 17:54		
Haloether 428	ND	ug/L	1.0	1		02/07/17 17:54		
Haloether 508	ND	ug/L	1.0	1		02/07/17 17:54		
Haloether 528	ND	ug/L	1.0	1		02/07/17 17:54		
Halomar	ND	ug/L	1.0	1		02/07/17 17:54		
2-Hexanone	ND	ug/L	2.0	1		02/07/17 17:54	591-78-6	
Isoflurane	ND	ug/L	1.0	1		02/07/17 17:54		
Methoxyflurane	ND	ug/L	1.0	1		02/07/17 17:54	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		02/07/17 17:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		02/07/17 17:54	108-10-1	
Styrene	ND	ug/L	1.0	1		02/07/17 17:54	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/07/17 17:54	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/07/17 17:54	127-18-4	
Toluene	ND	ug/L	1.0	1		02/07/17 17:54	108-88-3	
Total Haloether	ND	ug/L	1.0	1		02/07/17 17:54		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/07/17 17:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/07/17 17:54	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/07/17 17:54	79-01-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

ANALYTICAL RESULTS

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Sample: TB-20170202 **Lab ID: 2049726001** Collected: 02/02/17 00:00 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Trichlorofluoromethane	ND	ug/L	1.0	1		02/07/17 17:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/07/17 17:54	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		02/07/17 17:54	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		02/07/17 17:54	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		02/07/17 17:54	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/07/17 17:54	95-47-6	
Surrogates								
Toluene-d8 (S)	100	%.	79-119	1		02/07/17 17:54	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	68-124	1		02/07/17 17:54	460-00-4	
Dibromofluoromethane (S)	103	%.	72-126	1		02/07/17 17:54	1868-53-7	

Sample: INF-20170202 **Lab ID: 2049726002** Collected: 02/02/17 10:50 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	**28.7**	ug/L	4.0	1		02/07/17 18:47	67-64-1	~~C9~~
Acrolein	ND	ug/L	8.0	1		02/07/17 18:47	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		02/07/17 18:47	107-13-1	
Benzene	ND	ug/L	1.0	1		02/07/17 18:47	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		02/07/17 18:47	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/07/17 18:47	75-25-2	
Bromomethane	ND	ug/L	1.0	1		02/07/17 18:47	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		02/07/17 18:47	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		02/07/17 18:47	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		02/07/17 18:47	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/07/17 18:47	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/07/17 18:47	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/07/17 18:47	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/07/17 18:47	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		02/07/17 18:47	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		02/07/17 18:47	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/07/17 18:47	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/07/17 18:47	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		02/07/17 18:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 18:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 18:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/07/17 18:47	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 18:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 18:47	10061-02-6	
Enflurane	**1.6**	ug/L	1.0	1		02/07/17 18:47	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		02/07/17 18:47	100-41-4	
Haloether 229	**14.8**	ug/L	1.0	1		02/07/17 18:47		
Haloether 406	ND	ug/L	1.0	1		02/07/17 18:47		
Haloether 421	ND	ug/L	1.0	1		02/07/17 18:47		
Haloether 427	ND	ug/L	1.0	1		02/07/17 18:47		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

ANALYTICAL RESULTS

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Sample: INF-20170202 **Lab ID: 2049726002** Collected: 02/02/17 10:50 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Haloether 428	ND	ug/L	1.0	1		02/07/17 18:47		
Haloether 508	**32.7**	ug/L	1.0	1		02/07/17 18:47		
Haloether 528	ND	ug/L	1.0	1		02/07/17 18:47		
Halomar	ND	ug/L	1.0	1		02/07/17 18:47		
2-Hexanone	ND	ug/L	2.0	1		02/07/17 18:47	591-78-6	
Isoflurane	**69.1**	ug/L	1.0	1		02/07/17 18:47		
Methoxyflurane	ND	ug/L	1.0	1		02/07/17 18:47	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		02/07/17 18:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		02/07/17 18:47	108-10-1	
Styrene	ND	ug/L	1.0	1		02/07/17 18:47	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/07/17 18:47	79-34-5	
Tetrachloroethene	**6.0**	ug/L	1.0	1		02/07/17 18:47	127-18-4	
Toluene	ND	ug/L	1.0	1		02/07/17 18:47	108-88-3	
Total Haloether	**118**	ug/L	1.0	1		02/07/17 18:47		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/07/17 18:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/07/17 18:47	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/07/17 18:47	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/07/17 18:47	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/07/17 18:47	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		02/07/17 18:47	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		02/07/17 18:47	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		02/07/17 18:47	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/07/17 18:47	95-47-6	
Surrogates								
Toluene-d8 (S)	100	%.	79-119	1		02/07/17 18:47	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	68-124	1		02/07/17 18:47	460-00-4	
Dibromofluoromethane (S)	102	%.	72-126	1		02/07/17 18:47	1868-53-7	

Sample: EFF-20170202 **Lab ID: 2049726003** Collected: 02/02/17 11:15 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	**15.5**	ug/L	4.0	1		02/07/17 17:36	67-64-1	~~C9~~
Acrolein	~~ND~~	~~ug/L~~	~~8.0~~	~~1~~		~~02/07/17 17:36~~	~~107-02-8~~	~~M1~~ R
Acrylonitrile	ND	ug/L	4.0	1		02/07/17 17:36	107-13-1	
Benzene	ND	ug/L	1.0	1		02/07/17 17:36	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		02/07/17 17:36	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/07/17 17:36	75-25-2	
Bromomethane	ND	ug/L	1.0	1		02/07/17 17:36	74-83-9	~~R1~~ UJ
2-Butanone (MEK)	**2.3**	ug/L	2.0	1		02/07/17 17:36	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		02/07/17 17:36	75-15-0	~~M1,R1~~ UJ
Carbon tetrachloride	ND	ug/L	1.0	1		02/07/17 17:36	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/07/17 17:36	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/07/17 17:36	75-00-3	~~R1~~ UJ
Chloroform	ND	ug/L	1.0	1		02/07/17 17:36	67-66-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

ANALYTICAL RESULTS

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Sample: EFF-20170202 **Lab ID: 2049726003** Collected: 02/02/17 11:15 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Chloromethane	ND	ug/L	1.0	1		02/07/17 17:36	74-87-3	~~R1~~ UJ
Dibromochloromethane	ND	ug/L	1.0	1		02/07/17 17:36	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		02/07/17 17:36	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/07/17 17:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/07/17 17:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		02/07/17 17:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 17:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 17:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/07/17 17:36	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 17:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 17:36	10061-02-6	
Enflurane	ND	ug/L	1.0	1		02/07/17 17:36	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		02/07/17 17:36	100-41-4	
Haloether 229	ND	ug/L	1.0	1		02/07/17 17:36		
Haloether 406	ND	ug/L	1.0	1		02/07/17 17:36		
Haloether 421	ND	ug/L	1.0	1		02/07/17 17:36		
Haloether 427	ND	ug/L	1.0	1		02/07/17 17:36		
Haloether 428	ND	ug/L	1.0	1		02/07/17 17:36		
Haloether 508	ND	ug/L	1.0	1		02/07/17 17:36		
Haloether 528	ND	ug/L	1.0	1		02/07/17 17:36		
Halomar	ND	ug/L	1.0	1		02/07/17 17:36		
2-Hexanone	ND	ug/L	2.0	1		02/07/17 17:36	591-78-6	
Isoflurane	ND	ug/L	1.0	1		02/07/17 17:36		
Methoxyflurane	ND	ug/L	1.0	1		02/07/17 17:36	76-38-0	~~M1~~
Methylene Chloride	ND	ug/L	5.0	1		02/07/17 17:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		02/07/17 17:36	108-10-1	
Styrene	~~ND~~	~~ug/L~~	~~1.0~~	~~1~~		~~02/07/17 17:36~~	~~100-42-5~~	~~M1~~ R
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/07/17 17:36	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/07/17 17:36	127-18-4	
Toluene	ND	ug/L	1.0	1		02/07/17 17:36	108-88-3	
Total Haloether	ND	ug/L	1.0	1		02/07/17 17:36		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/07/17 17:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/07/17 17:36	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/07/17 17:36	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/07/17 17:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/07/17 17:36	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		02/07/17 17:36	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		02/07/17 17:36	75-01-4	~~R1~~ UJ
m&p-Xylene	~~ND~~	~~ug/L~~	~~2.0~~	~~1~~		~~02/07/17 17:36~~	~~179601-23-1~~	~~M1~~ R
o-Xylene	ND	ug/L	1.0	1		02/07/17 17:36	95-47-6	~~M1~~ UJ
Surrogates								
Toluene-d8 (S)	98	%.	79-119	1		02/07/17 17:36	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	68-124	1		02/07/17 17:36	460-00-4	
Dibromofluoromethane (S)	104	%.	72-126	1		02/07/17 17:36	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

ANALYTICAL RESULTS

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Sample: EFFDUP-20170202 **Lab ID: 2049726004** Collected: 02/02/17 11:15 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	**15.7**	ug/L	4.0	1		02/07/17 18:12	67-64-1	~~C9~~
Acrolein	ND	ug/L	8.0	1		02/07/17 18:12	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		02/07/17 18:12	107-13-1	
Benzene	ND	ug/L	1.0	1		02/07/17 18:12	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		02/07/17 18:12	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/07/17 18:12	75-25-2	
Bromomethane	ND	ug/L	1.0	1		02/07/17 18:12	74-83-9	
2-Butanone (MEK)	**2.8**	ug/L	2.0	1		02/07/17 18:12	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		02/07/17 18:12	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		02/07/17 18:12	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/07/17 18:12	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/07/17 18:12	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/07/17 18:12	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/07/17 18:12	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		02/07/17 18:12	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		02/07/17 18:12	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/07/17 18:12	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/07/17 18:12	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		02/07/17 18:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 18:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 18:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/07/17 18:12	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 18:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 18:12	10061-02-6	
Enflurane	ND	ug/L	1.0	1		02/07/17 18:12	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		02/07/17 18:12	100-41-4	
Haloether 229	ND	ug/L	1.0	1		02/07/17 18:12		
Haloether 406	ND	ug/L	1.0	1		02/07/17 18:12		
Haloether 421	ND	ug/L	1.0	1		02/07/17 18:12		
Haloether 427	ND	ug/L	1.0	1		02/07/17 18:12		
Haloether 428	ND	ug/L	1.0	1		02/07/17 18:12		
Haloether 508	ND	ug/L	1.0	1		02/07/17 18:12		
Haloether 528	ND	ug/L	1.0	1		02/07/17 18:12		
Halomar	ND	ug/L	1.0	1		02/07/17 18:12		
2-Hexanone	ND	ug/L	2.0	1		02/07/17 18:12	591-78-6	
Isoflurane	ND	ug/L	1.0	1		02/07/17 18:12		
Methoxyflurane	ND	ug/L	1.0	1		02/07/17 18:12	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		02/07/17 18:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		02/07/17 18:12	108-10-1	
Styrene	ND	ug/L	1.0	1		02/07/17 18:12	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/07/17 18:12	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/07/17 18:12	127-18-4	
Toluene	ND	ug/L	1.0	1		02/07/17 18:12	108-88-3	
Total Haloether	ND	ug/L	1.0	1		02/07/17 18:12		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/07/17 18:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/07/17 18:12	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/07/17 18:12	79-01-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

ANALYTICAL RESULTS

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Sample: EFFDUP-20170202 **Lab ID: 2049726004** Collected: 02/02/17 11:15 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Trichlorofluoromethane	ND	ug/L	1.0	1		02/07/17 18:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/07/17 18:12	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		02/07/17 18:12	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		02/07/17 18:12	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		02/07/17 18:12	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/07/17 18:12	95-47-6	
Surrogates								
Toluene-d8 (S)	97	%.	79-119	1		02/07/17 18:12	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	68-124	1		02/07/17 18:12	460-00-4	
Dibromofluoromethane (S)	103	%.	72-126	1		02/07/17 18:12	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical

WO# : 2049726

2049726

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A — Required Client Information:

Company:	ARCADIS U.S., Inc.
Address:	410 North 44th St., Suite 1000
	Phoenix, AZ 85008
Email To:	david.howard@arcadis-us.com
Phone:	602.797.4518 Fax:
Requested Due Date:	

Section B

Report To:	David Howard
Copy To:	Cassandra McCloud
	cassandra.mccloud@arcadis-us.com
Purchase Order #:	CO001911.0003 1602A
Project Name:	Fibers Public Supply Wells
Project #:	CO001911.0003 1602A

Section C — Invoice Information:

Attention:	Accounts Payable
Company Name:	ARCADIS
Address:	
Pace Quote:	
Pace Project Manager:	justin.stock@pacelabs.com
Pace Profile #:	

Regulatory Agency: CERCLA

State / Location: PR

Requested Analysis Filtered (Y/N)

SAMPLE ID

One Character per box. (A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analyses Test Y/N	EPA 8260B Haloethers	SM 2320B Alkalinity	SM 5310B TOC	ASTM D516,90,02 Sulfate	EPA 6010 Dissolved Metals (Fe, Mn)	EPA 6010 Total Metals (Fe, Mn)	RSK 175 Methane	EPA 300.0 Chloride	Residual Chlorine (Y/N)	Comments
1	TB-20170202	WT	G			02/02/17	0800		2				2															
2	INF-20170202	WT	G			02/02/17	1050		3				3						X									
3	EFF-20170202	WT	G			02/02/17	1115		3				3						X									
4	EFFMS-20170202	WT	G			02/02/17	1115		3				3						X									
5	EFFMSD-20170202	WT	G			02/02/17	1115		3				3						X									
6	EFFDUP-20170202	WT	G			02/02/17	1115		3				3						X									
7																												
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Andrés Colon / Arcadis	02/02/17	1330	[signature] - Pace	02/02/17	1330	Y or N
	FedEx	2-3-17	0940	[signature] - Pace	2-3-17	0940	2.1 Y Y Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Andrés Colon

SIGNATURE of SAMPLER: [signature]

DATE Signed: 02/02/17

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Y	Y	Y

Attachment 2
Laboratory Analytical Report #2049726

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

February 16, 2017

David Howard
ARCADIS
410 North 44th St.
Suite 1000
Phoenix, AZ 85008

RE: Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Dear David Howard:
Enclosed are the analytical results for sample(s) received by the laboratory on February 03, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Craig McCollum
craig.mccollum@pacelabs.com
Project Manager

Enclosures

cc: Janisse Diaz, Arcadis
Cassandra McCloud
Gisela Hernandez Rivera, Arcadis
Elvin Varela, ARCADIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
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(504)469-0333

CERTIFICATIONS

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

New Orleans Certification IDs

California Env. Lab Accreditation Program Branch: 11277CA
Florida Department of Health (NELAC): E87595
Illinois Environmental Protection Agency: 0025721
Kansas Department of Health and Environment (NELAC): E-10266
Louisiana Dept. of Environmental Quality (NELAC/LELAP): 02006
Pennsylvania Dept. of Env Protection (NELAC): 68-04202
Texas Commission on Env. Quality (NELAC): T104704405-09-TX
U.S. Dept. of Agriculture Foreign Soil Import: P330-10-00119
Commonwealth of Virginia (TNI): 480246

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(504)469-0333

SAMPLE SUMMARY

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2049726001	**TB-20170202**	Water	02/02/17 00:00	02/03/17 09:40
2049726002	**INF-20170202**	Water	02/02/17 10:50	02/03/17 09:40
2049726003	**EFF-20170202**	Water	02/02/17 11:15	02/03/17 09:40
2049726004	**EFFDUP-20170202**	Water	02/02/17 11:15	02/03/17 09:40

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

SAMPLE ANALYTE COUNT

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2049726001	**TB-20170202**	EPA 5030B/8260	RMP	56	PASI-N
2049726002	**INF-20170202**	EPA 5030B/8260	RMP	56	PASI-N
2049726003	**EFF-20170202**	EPA 5030B/8260	RMP	56	PASI-N
2049726004	**EFFDUP-20170202**	EPA 5030B/8260	RMP	56	PASI-N

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PROJECT NARRATIVE

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Method: **EPA 5030B/8260**
Description: 8260 MSV HALOETHERS
Client: ARCADIS
Date: February 16, 2017

General Information:
4 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 73753

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 2049726003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 309504)
  - Acrolein
  - Carbon disulfide
  - Methoxyflurane
  - Styrene
  - m&p-Xylene
  - o-Xylene
- MSD (Lab ID: 309505)
  - Acrolein
  - Styrene
  - m&p-Xylene
  - o-Xylene

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PROJECT NARRATIVE

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Method: **EPA 5030B/8260**
Description: 8260 MSV HALOETHERS
Client: ARCADIS
Date: February 16, 2017

QC Batch: 73753

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 2049726003

R1: RPD value was outside control limits.

- MSD (Lab ID: 309505)
  - Bromomethane
  - Carbon disulfide
  - Chloroethane
  - Chloromethane
  - Vinyl chloride

Additional Comments:

Analyte Comments:

QC Batch: 73753

C9: Common Laboratory Contaminant.

- EFF-20170202 (Lab ID: 2049726003)
  - Acetone
- EFFDUP-20170202 (Lab ID: 2049726004)
  - Acetone
- INF-20170202 (Lab ID: 2049726002)
  - Acetone
- TB-20170202 (Lab ID: 2049726001)
  - Acetone

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

ANALYTICAL RESULTS

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Sample: TB-20170202 **Lab ID: 2049726001** Collected: 02/02/17 00:00 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	**36.5**	ug/L	4.0	1		02/07/17 17:54	67-64-1	C9
Acrolein	ND	ug/L	8.0	1		02/07/17 17:54	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		02/07/17 17:54	107-13-1	
Benzene	ND	ug/L	1.0	1		02/07/17 17:54	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		02/07/17 17:54	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/07/17 17:54	75-25-2	
Bromomethane	ND	ug/L	1.0	1		02/07/17 17:54	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		02/07/17 17:54	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		02/07/17 17:54	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		02/07/17 17:54	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/07/17 17:54	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/07/17 17:54	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/07/17 17:54	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/07/17 17:54	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		02/07/17 17:54	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		02/07/17 17:54	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/07/17 17:54	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/07/17 17:54	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		02/07/17 17:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 17:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 17:54	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/07/17 17:54	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 17:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 17:54	10061-02-6	
Enflurane	ND	ug/L	1.0	1		02/07/17 17:54	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		02/07/17 17:54	100-41-4	
Haloether 229	ND	ug/L	1.0	1		02/07/17 17:54		
Haloether 406	ND	ug/L	1.0	1		02/07/17 17:54		
Haloether 421	ND	ug/L	1.0	1		02/07/17 17:54		
Haloether 427	ND	ug/L	1.0	1		02/07/17 17:54		
Haloether 428	ND	ug/L	1.0	1		02/07/17 17:54		
Haloether 508	ND	ug/L	1.0	1		02/07/17 17:54		
Haloether 528	ND	ug/L	1.0	1		02/07/17 17:54		
Halomar	ND	ug/L	1.0	1		02/07/17 17:54		
2-Hexanone	ND	ug/L	2.0	1		02/07/17 17:54	591-78-6	
Isoflurane	ND	ug/L	1.0	1		02/07/17 17:54		
Methoxyflurane	ND	ug/L	1.0	1		02/07/17 17:54	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		02/07/17 17:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		02/07/17 17:54	108-10-1	
Styrene	ND	ug/L	1.0	1		02/07/17 17:54	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/07/17 17:54	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/07/17 17:54	127-18-4	
Toluene	ND	ug/L	1.0	1		02/07/17 17:54	108-88-3	
Total Haloether	ND	ug/L	1.0	1		02/07/17 17:54		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/07/17 17:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/07/17 17:54	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/07/17 17:54	79-01-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

ANALYTICAL RESULTS

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Sample: TB-20170202 **Lab ID: 2049726001** Collected: 02/02/17 00:00 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Trichlorofluoromethane	ND	ug/L	1.0	1		02/07/17 17:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/07/17 17:54	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		02/07/17 17:54	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		02/07/17 17:54	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		02/07/17 17:54	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/07/17 17:54	95-47-6	
Surrogates								
Toluene-d8 (S)	100	%.	79-119	1		02/07/17 17:54	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	68-124	1		02/07/17 17:54	460-00-4	
Dibromofluoromethane (S)	103	%.	72-126	1		02/07/17 17:54	1868-53-7	

Sample: INF-20170202 **Lab ID: 2049726002** Collected: 02/02/17 10:50 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	**28.7**	ug/L	4.0	1		02/07/17 18:47	67-64-1	C9
Acrolein	ND	ug/L	8.0	1		02/07/17 18:47	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		02/07/17 18:47	107-13-1	
Benzene	ND	ug/L	1.0	1		02/07/17 18:47	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		02/07/17 18:47	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/07/17 18:47	75-25-2	
Bromomethane	ND	ug/L	1.0	1		02/07/17 18:47	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		02/07/17 18:47	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		02/07/17 18:47	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		02/07/17 18:47	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/07/17 18:47	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/07/17 18:47	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/07/17 18:47	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/07/17 18:47	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		02/07/17 18:47	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		02/07/17 18:47	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/07/17 18:47	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/07/17 18:47	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		02/07/17 18:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 18:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 18:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/07/17 18:47	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 18:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 18:47	10061-02-6	
Enflurane	**1.6**	ug/L	1.0	1		02/07/17 18:47	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		02/07/17 18:47	100-41-4	
Haloether 229	**14.8**	ug/L	1.0	1		02/07/17 18:47		
Haloether 406	ND	ug/L	1.0	1		02/07/17 18:47		
Haloether 421	ND	ug/L	1.0	1		02/07/17 18:47		
Haloether 427	ND	ug/L	1.0	1		02/07/17 18:47		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

ANALYTICAL RESULTS

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Sample: INF-20170202 **Lab ID: 2049726002** Collected: 02/02/17 10:50 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Haloether 428	ND	ug/L	1.0	1		02/07/17 18:47		
Haloether 508	**32.7**	ug/L	1.0	1		02/07/17 18:47		
Haloether 528	ND	ug/L	1.0	1		02/07/17 18:47		
Halomar	ND	ug/L	1.0	1		02/07/17 18:47		
2-Hexanone	ND	ug/L	2.0	1		02/07/17 18:47	591-78-6	
Isoflurane	**69.1**	ug/L	1.0	1		02/07/17 18:47		
Methoxyflurane	ND	ug/L	1.0	1		02/07/17 18:47	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		02/07/17 18:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		02/07/17 18:47	108-10-1	
Styrene	ND	ug/L	1.0	1		02/07/17 18:47	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/07/17 18:47	79-34-5	
Tetrachloroethene	**6.0**	ug/L	1.0	1		02/07/17 18:47	127-18-4	
Toluene	ND	ug/L	1.0	1		02/07/17 18:47	108-88-3	
Total Haloether	**118**	ug/L	1.0	1		02/07/17 18:47		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/07/17 18:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/07/17 18:47	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/07/17 18:47	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/07/17 18:47	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/07/17 18:47	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		02/07/17 18:47	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		02/07/17 18:47	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		02/07/17 18:47	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/07/17 18:47	95-47-6	
Surrogates								
Toluene-d8 (S)	100	%.	79-119	1		02/07/17 18:47	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	68-124	1		02/07/17 18:47	460-00-4	
Dibromofluoromethane (S)	102	%.	72-126	1		02/07/17 18:47	1868-53-7	

Sample: EFF-20170202 **Lab ID: 2049726003** Collected: 02/02/17 11:15 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	**15.5**	ug/L	4.0	1		02/07/17 17:36	67-64-1	C9
Acrolein	ND	ug/L	8.0	1		02/07/17 17:36	107-02-8	M1
Acrylonitrile	ND	ug/L	4.0	1		02/07/17 17:36	107-13-1	
Benzene	ND	ug/L	1.0	1		02/07/17 17:36	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		02/07/17 17:36	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/07/17 17:36	75-25-2	
Bromomethane	ND	ug/L	1.0	1		02/07/17 17:36	74-83-9	R1
2-Butanone (MEK)	**2.3**	ug/L	2.0	1		02/07/17 17:36	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		02/07/17 17:36	75-15-0	M1,R1
Carbon tetrachloride	ND	ug/L	1.0	1		02/07/17 17:36	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/07/17 17:36	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/07/17 17:36	75-00-3	R1
Chloroform	ND	ug/L	1.0	1		02/07/17 17:36	67-66-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

ANALYTICAL RESULTS

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Sample: EFF-20170202 **Lab ID: 2049726003** Collected: 02/02/17 11:15 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Chloromethane	ND	ug/L	1.0	1		02/07/17 17:36	74-87-3	R1
Dibromochloromethane	ND	ug/L	1.0	1		02/07/17 17:36	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		02/07/17 17:36	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/07/17 17:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/07/17 17:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		02/07/17 17:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 17:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 17:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/07/17 17:36	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 17:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 17:36	10061-02-6	
Enflurane	ND	ug/L	1.0	1		02/07/17 17:36	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		02/07/17 17:36	100-41-4	
Haloether 229	ND	ug/L	1.0	1		02/07/17 17:36		
Haloether 406	ND	ug/L	1.0	1		02/07/17 17:36		
Haloether 421	ND	ug/L	1.0	1		02/07/17 17:36		
Haloether 427	ND	ug/L	1.0	1		02/07/17 17:36		
Haloether 428	ND	ug/L	1.0	1		02/07/17 17:36		
Haloether 508	ND	ug/L	1.0	1		02/07/17 17:36		
Haloether 528	ND	ug/L	1.0	1		02/07/17 17:36		
Halomar	ND	ug/L	1.0	1		02/07/17 17:36		
2-Hexanone	ND	ug/L	2.0	1		02/07/17 17:36	591-78-6	
Isoflurane	ND	ug/L	1.0	1		02/07/17 17:36		
Methoxyflurane	ND	ug/L	1.0	1		02/07/17 17:36	76-38-0	M1
Methylene Chloride	ND	ug/L	5.0	1		02/07/17 17:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		02/07/17 17:36	108-10-1	
Styrene	ND	ug/L	1.0	1		02/07/17 17:36	100-42-5	M1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/07/17 17:36	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/07/17 17:36	127-18-4	
Toluene	ND	ug/L	1.0	1		02/07/17 17:36	108-88-3	
Total Haloether	ND	ug/L	1.0	1		02/07/17 17:36		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/07/17 17:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/07/17 17:36	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/07/17 17:36	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/07/17 17:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/07/17 17:36	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		02/07/17 17:36	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		02/07/17 17:36	75-01-4	R1
m&p-Xylene	ND	ug/L	2.0	1		02/07/17 17:36	179601-23-1	M1
o-Xylene	ND	ug/L	1.0	1		02/07/17 17:36	95-47-6	M1
Surrogates								
Toluene-d8 (S)	98	%.	79-119	1		02/07/17 17:36	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	68-124	1		02/07/17 17:36	460-00-4	
Dibromofluoromethane (S)	104	%.	72-126	1		02/07/17 17:36	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

ANALYTICAL RESULTS

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Sample: EFFDUP-20170202 **Lab ID: 2049726004** Collected: 02/02/17 11:15 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	**15.7**	ug/L	4.0	1		02/07/17 18:12	67-64-1	C9
Acrolein	ND	ug/L	8.0	1		02/07/17 18:12	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		02/07/17 18:12	107-13-1	
Benzene	ND	ug/L	1.0	1		02/07/17 18:12	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		02/07/17 18:12	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/07/17 18:12	75-25-2	
Bromomethane	ND	ug/L	1.0	1		02/07/17 18:12	74-83-9	
2-Butanone (MEK)	**2.8**	ug/L	2.0	1		02/07/17 18:12	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		02/07/17 18:12	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		02/07/17 18:12	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/07/17 18:12	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/07/17 18:12	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/07/17 18:12	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/07/17 18:12	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		02/07/17 18:12	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		02/07/17 18:12	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/07/17 18:12	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/07/17 18:12	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		02/07/17 18:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 18:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/07/17 18:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/07/17 18:12	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 18:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/07/17 18:12	10061-02-6	
Enflurane	ND	ug/L	1.0	1		02/07/17 18:12	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		02/07/17 18:12	100-41-4	
Haloether 229	ND	ug/L	1.0	1		02/07/17 18:12		
Haloether 406	ND	ug/L	1.0	1		02/07/17 18:12		
Haloether 421	ND	ug/L	1.0	1		02/07/17 18:12		
Haloether 427	ND	ug/L	1.0	1		02/07/17 18:12		
Haloether 428	ND	ug/L	1.0	1		02/07/17 18:12		
Haloether 508	ND	ug/L	1.0	1		02/07/17 18:12		
Haloether 528	ND	ug/L	1.0	1		02/07/17 18:12		
Halomar	ND	ug/L	1.0	1		02/07/17 18:12		
2-Hexanone	ND	ug/L	2.0	1		02/07/17 18:12	591-78-6	
Isoflurane	ND	ug/L	1.0	1		02/07/17 18:12		
Methoxyflurane	ND	ug/L	1.0	1		02/07/17 18:12	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		02/07/17 18:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		02/07/17 18:12	108-10-1	
Styrene	ND	ug/L	1.0	1		02/07/17 18:12	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/07/17 18:12	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		02/07/17 18:12	127-18-4	
Toluene	ND	ug/L	1.0	1		02/07/17 18:12	108-88-3	
Total Haloether	ND	ug/L	1.0	1		02/07/17 18:12		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/07/17 18:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/07/17 18:12	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/07/17 18:12	79-01-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

ANALYTICAL RESULTS

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Sample: EFFDUP-20170202 **Lab ID: 2049726004** Collected: 02/02/17 11:15 Received: 02/03/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Trichlorofluoromethane	ND	ug/L	1.0	1		02/07/17 18:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/07/17 18:12	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		02/07/17 18:12	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		02/07/17 18:12	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		02/07/17 18:12	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/07/17 18:12	95-47-6	
Surrogates								
Toluene-d8 (S)	97	%.	79-119	1		02/07/17 18:12	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	68-124	1		02/07/17 18:12	460-00-4	
Dibromofluoromethane (S)	103	%.	72-126	1		02/07/17 18:12	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

QUALITY CONTROL DATA

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

QC Batch: 73753 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV
Associated Lab Samples: 2049726001, 2049726002, 2049726003, 2049726004

METHOD BLANK: 309502 Matrix: Water
Associated Lab Samples: 2049726001, 2049726002, 2049726003, 2049726004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	02/07/17 16:07	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	02/07/17 16:07	
1,1,2-Trichloroethane	ug/L	ND	1.0	02/07/17 16:07	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	1.0	02/07/17 16:07	
1,1-Dichloroethane	ug/L	ND	1.0	02/07/17 16:07	
1,1-Dichloroethene	ug/L	ND	1.0	02/07/17 16:07	
1,2,3-Trichloropropane	ug/L	ND	1.0	02/07/17 16:07	
1,2-Dichloroethane	ug/L	ND	1.0	02/07/17 16:07	
1,2-Dichloropropane	ug/L	ND	1.0	02/07/17 16:07	
2-Butanone (MEK)	ug/L	ND	2.0	02/07/17 16:07	
2-Hexanone	ug/L	ND	2.0	02/07/17 16:07	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	2.0	02/07/17 16:07	
Acetone	ug/L	ND	4.0	02/07/17 16:07	
Acrolein	ug/L	ND	8.0	02/07/17 16:07	
Acrylonitrile	ug/L	ND	4.0	02/07/17 16:07	
Benzene	ug/L	ND	1.0	02/07/17 16:07	
Bromodichloromethane	ug/L	ND	1.0	02/07/17 16:07	
Bromoform	ug/L	ND	1.0	02/07/17 16:07	
Bromomethane	ug/L	ND	1.0	02/07/17 16:07	
Carbon disulfide	ug/L	ND	1.0	02/07/17 16:07	
Carbon tetrachloride	ug/L	ND	1.0	02/07/17 16:07	
Chlorobenzene	ug/L	ND	1.0	02/07/17 16:07	
Chloroethane	ug/L	ND	1.0	02/07/17 16:07	
Chloroform	ug/L	ND	1.0	02/07/17 16:07	
Chloromethane	ug/L	ND	1.0	02/07/17 16:07	
cis-1,2-Dichloroethene	ug/L	ND	1.0	02/07/17 16:07	
cis-1,3-Dichloropropene	ug/L	ND	1.0	02/07/17 16:07	
Dibromochloromethane	ug/L	ND	1.0	02/07/17 16:07	
Dibromomethane	ug/L	ND	1.0	02/07/17 16:07	
Enflurane	ug/L	ND	1.0	02/07/17 16:07	
Ethylbenzene	ug/L	ND	1.0	02/07/17 16:07	
Haloether 229	ug/L	ND	1.0	02/07/17 16:07	
Haloether 406	ug/L	ND	1.0	02/07/17 16:07	
Haloether 421	ug/L	ND	1.0	02/07/17 16:07	
Haloether 427	ug/L	ND	1.0	02/07/17 16:07	
Haloether 428	ug/L	ND	1.0	02/07/17 16:07	
Haloether 508	ug/L	ND	1.0	02/07/17 16:07	
Haloether 528	ug/L	ND	1.0	02/07/17 16:07	
Halomar	ug/L	ND	1.0	02/07/17 16:07	
Isoflurane	ug/L	ND	1.0	02/07/17 16:07	
m&p-Xylene	ug/L	ND	2.0	02/07/17 16:07	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

QUALITY CONTROL DATA

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

METHOD BLANK: 309502 Matrix: Water
Associated Lab Samples: 2049726001, 2049726002, 2049726003, 2049726004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methoxyflurane	ug/L	ND	1.0	02/07/17 16:07	
Methylene Chloride	ug/L	ND	5.0	02/07/17 16:07	
o-Xylene	ug/L	ND	1.0	02/07/17 16:07	
Styrene	ug/L	ND	1.0	02/07/17 16:07	
Tetrachloroethene	ug/L	ND	1.0	02/07/17 16:07	
Toluene	ug/L	ND	1.0	02/07/17 16:07	
Total Haloether	ug/L	ND	1.0	02/07/17 16:07	
trans-1,2-Dichloroethene	ug/L	ND	1.0	02/07/17 16:07	
trans-1,3-Dichloropropene	ug/L	ND	1.0	02/07/17 16:07	
Trichloroethene	ug/L	ND	1.0	02/07/17 16:07	
Trichlorofluoromethane	ug/L	ND	1.0	02/07/17 16:07	
Vinyl chloride	ug/L	ND	1.0	02/07/17 16:07	
4-Bromofluorobenzene (S)	%.	97	68-124	02/07/17 16:07	
Dibromofluoromethane (S)	%.	106	72-126	02/07/17 16:07	
Toluene-d8 (S)	%.	100	79-119	02/07/17 16:07	

LABORATORY CONTROL SAMPLE: 309503

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	50.3	101	62-131	
1,1,2,2-Tetrachloroethane	ug/L	50	48.2	96	15-179	
1,1,2-Trichloroethane	ug/L	50	51.2	102	58-144	
1,1,2-Trichlorotrifluoroethane	ug/L	50	44.4	89	38-121	
1,1-Dichloroethane	ug/L	50	51.5	103	63-129	
1,1-Dichloroethene	ug/L	50	43.6	87	51-139	
1,2,3-Trichloropropane	ug/L	50	47.4	95	13-187	
1,2-Dichloroethane	ug/L	50	50.6	101	57-148	
1,2-Dichloropropane	ug/L	50	51.2	102	66-128	
2-Butanone (MEK)	ug/L	50	54.3	109	32-183	
2-Hexanone	ug/L	50	54.1	108	36-170	
4-Methyl-2-pentanone (MIBK)	ug/L	50	55.5	111	26-171	
Acetone	ug/L	50	59.3	119	22-165	
Acrolein	ug/L	100	78.6	79	10-131	
Acrylonitrile	ug/L	50	55.4	111	18-149	
Benzene	ug/L	50	49.9	100	62-131	
Bromodichloromethane	ug/L	50	52.0	104	69-132	
Bromoform	ug/L	50	47.0	94	35-166	
Bromomethane	ug/L	50	54.5	109	34-158	
Carbon disulfide	ug/L	50	50.3	101	31-128	
Carbon tetrachloride	ug/L	50	48.1	96	54-144	
Chlorobenzene	ug/L	50	49.6	99	70-127	
Chloroethane	ug/L	50	46.9	94	17-195	
Chloroform	ug/L	50	52.5	105	73-134	
Chloromethane	ug/L	50	37.7	75	17-153	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

QUALITY CONTROL DATA

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

LABORATORY CONTROL SAMPLE: 309503

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	48.6	97	68-129	
cis-1,3-Dichloropropene	ug/L	50	51.8	104	72-138	
Dibromochloromethane	ug/L	50	49.8	100	49-146	
Dibromomethane	ug/L	50	49.9	100	56-145	
Enflurane	ug/L	50	51.7	103	56-135	
Ethylbenzene	ug/L	50	47.2	94	66-126	
Haloether 229	ug/L	50	33.8	68	62-123	
Haloether 406	ug/L	50	47.9	96	62-134	
Haloether 421	ug/L	50	52.0	104	70-128	
Haloether 427	ug/L	50	47.3	95	69-153	
Haloether 428	ug/L	50	49.1	98	70-134	
Haloether 508	ug/L	50	50.9	102	52-139	
Haloether 528	ug/L	50	50.1	100	48-157	
Halomar	ug/L	50	52.7	105	62-128	
Isoflurane	ug/L	50	50.9	102	61-132	
m&p-Xylene	ug/L	100	95.2	95	65-129	
Methoxyflurane	ug/L	50	52.7	105	72-124	
Methylene Chloride	ug/L	50	54.0	108	46-168	
o-Xylene	ug/L	50	47.5	95	65-124	
Styrene	ug/L	50	50.0	100	72-133	
Tetrachloroethene	ug/L	50	48.5	97	46-157	
Toluene	ug/L	50	49.5	99	69-126	
Total Haloether	ug/L		539			
trans-1,2-Dichloroethene	ug/L	50	48.3	97	60-129	
trans-1,3-Dichloropropene	ug/L	50	51.7	103	59-149	
Trichloroethene	ug/L	50	47.5	95	67-132	
Trichlorofluoromethane	ug/L	50	48.5	97	39-171	
Vinyl chloride	ug/L	50	35.0	70	27-149	
4-Bromofluorobenzene (S)	%.			98	68-124	
Dibromofluoromethane (S)	%.			105	72-126	
Toluene-d8 (S)	%.			101	79-119	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 309504 309505

Parameter	Units	2049726003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	50	50	62.8	52.7	126	105	54-137	17	20	
1,1,2,2-Tetrachloroethane	ug/L	ND	50	50	54.9	47.8	110	96	15-187	14	20	
1,1,2-Trichloroethane	ug/L	ND	50	50	59.8	51.1	120	102	59-148	16	20	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	50	50	58.6	49.1	117	98	40-117	18	20	
1,1-Dichloroethane	ug/L	ND	50	50	60.2	51.4	120	103	59-133	16	20	
1,1-Dichloroethene	ug/L	ND	50	50	48.5	40.7	97	81	44-146	17	20	
1,2,3-Trichloropropane	ug/L	ND	50	50	54.8	47.0	110	94	14-199	15	20	
1,2-Dichloroethane	ug/L	ND	50	50	58.8	49.5	118	99	56-154	17	20	
1,2-Dichloropropane	ug/L	ND	50	50	59.2	50.4	118	101	62-135	16	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

QUALITY CONTROL DATA

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 309504 309505

Parameter	Units	2049726003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2-Butanone (MEK)	ug/L	2.3	50	50	63.4	54.7	122	105	20-205	15	20	
2-Hexanone	ug/L	ND	50	50	57.3	50.6	115	101	25-189	13	20	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	50	50	60.0	53.4	120	107	23-184	12	20	
Acetone	ug/L	15.5	50	50	89.5	79.2	148	128	11-217	12	20	
Acrolein	ug/L	ND	100	100	2.6J	ND	3	2	10-142		20	M1
Acrylonitrile	ug/L	ND	50	50	58.9	51.2	118	102	20-164	14	20	
Benzene	ug/L	ND	50	50	58.9	50.6	118	101	52-141	15	20	
Bromodichloromethane	ug/L	ND	50	50	60.0	51.3	120	103	70-134	16	20	
Bromoform	ug/L	ND	50	50	55.2	47.7	109	94	37-171	14	20	
Bromomethane	ug/L	ND	50	50	74.7	60.1	149	120	34-155	22	20	R1
Carbon disulfide	ug/L	ND	50	50	69.9	54.0	139	108	28-130	26	20	M1,R1
Carbon tetrachloride	ug/L	ND	50	50	59.8	49.4	120	99	48-146	19	20	
Chlorobenzene	ug/L	ND	50	50	59.8	50.4	120	101	67-129	17	20	
Chloroethane	ug/L	ND	50	50	73.7	55.8	147	112	12-192	28	20	R1
Chloroform	ug/L	ND	50	50	62.0	53.3	124	107	66-143	15	20	
Chloromethane	ug/L	ND	50	50	70.2	55.8	140	112	14-155	23	20	R1
cis-1,2-Dichloroethene	ug/L	ND	50	50	58.0	48.9	116	98	56-141	17	20	
cis-1,3-Dichloropropene	ug/L	ND	50	50	50.6	43.6	101	87	70-139	15	20	
Dibromochloromethane	ug/L	ND	50	50	58.8	50.0	116	99	50-150	16	20	
Dibromomethane	ug/L	ND	50	50	58.0	49.8	116	100	58-153	15	20	
Enflurane	ug/L	ND	50	50	61.5	52.3	123	105	63-126	16	20	
Ethylbenzene	ug/L	ND	50	50	41.2	35.2	82	70	57-135	16	20	
Haloether 229	ug/L	ND	50	50	50.0	38.5	100	77	56-127	26	20	
Haloether 406	ug/L	ND	50	50	60.0	50.0	120	100	68-128	18	20	
Haloether 421	ug/L	ND	50	50	59.6	51.8	119	104	74-120	14	20	
Haloether 427	ug/L	ND	50	50	59.3	51.4	119	103	78-120	14	20	
Haloether 428	ug/L	ND	50	50	59.8	51.7	120	103	74-125	14	20	
Haloether 508	ug/L	ND	50	50	64.4	52.5	129	105	28-156	20	20	
Haloether 528	ug/L	ND	50	50	48.0	40.4	96	81	45-142	17	20	
Halomar	ug/L	ND	50	50	61.4	52.6	123	105	67-123	16	20	
Isoflurane	ug/L	ND	50	50	60.7	51.3	121	103	45-140	17	20	
m&p-Xylene	ug/L	ND	100	100	3.6	3.1	4	3	56-136	16	20	M1
Methoxyflurane	ug/L	ND	50	50	59.9	51.2	120	102	75-119	16	20	M1
Methylene Chloride	ug/L	ND	50	50	62.6	51.6	125	103	45-166	19	20	
o-Xylene	ug/L	ND	50	50	6.6	5.9	13	12	57-133	10	20	M1
Styrene	ug/L	ND	50	50	ND	ND	0	0	58-144		20	M1
Tetrachloroethene	ug/L	ND	50	50	60.2	50.8	120	102	48-143	17	20	
Toluene	ug/L	ND	50	50	38.3	32.7	77	65	59-136	16	20	
Total Haloether	ug/L	ND			645	544				17		
trans-1,2-Dichloroethene	ug/L	ND	50	50	59.9	49.9	120	100	57-132	18	20	
trans-1,3-Dichloropropene	ug/L	ND	50	50	52.0	43.7	104	87	59-154	17	20	
Trichloroethene	ug/L	ND	50	50	57.6	49.9	115	100	58-140	14	20	
Trichlorofluoromethane	ug/L	ND	50	50	69.9	58.0	140	116	24-175	19	20	
Vinyl chloride	ug/L	ND	50	50	15.8	12.7	32	25	21-150	22	20	R1
4-Bromofluorobenzene (S)	%.						99	100	68-124			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

QUALITY CONTROL DATA

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 309504 309505

Parameter	Units	2049726003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dibromofluoromethane (S)	%.						108	107	72-126			
Toluene-d8 (S)	%.						101	101	79-119			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

QUALIFIERS

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The Nelac Institute

LABORATORIES

PASI-N	Pace Analytical Services - New Orleans

ANALYTE QUALIFIERS

C9	Common Laboratory Contaminant.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FIBERS PUBLIC SUPPLY WELLS
Pace Project No.: 2049726

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2049726001	**TB-20170202**	EPA 5030B/8260	73753		
2049726002	**INF-20170202**	EPA 5030B/8260	73753		
2049726003	**EFF-20170202**	EPA 5030B/8260	73753		
2049726004	**EFFDUP-20170202**	EPA 5030B/8260	73753		

Pace Analytical

WO# : 2049726

2049726

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A — Required Client Information:

Company:	ARCADIS U.S., Inc.
Address:	410 North 44th St., Suite 1000
	Phoenix, AZ 85008
Email To:	david.howard@arcadis-us.com
Phone:	602.797.4518 Fax:
Requested Due Date:	

Section B

Report To:	David Howard
Copy To:	Cassandra McCloud
	cassandra.mccloud@arcadis-us.com
Purchase Order #:	CO001911.0003 1602A
Project Name:	Fibers Public Supply Wells
Project #:	CO001911.0003 1602A

Section C — Invoice Information:

Attention:	Accounts Payable
Company Name:	ARCADIS
Address:	
Pace Quote:	
Pace Project Manager:	justin.stock@pacelabs.com
Pace Profile #:	

Regulatory Agency: CERCLA

State / Location: PR

Requested Analysis Filtered (Y/N)

SAMPLE ID

One Character per box. (A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analyses Test Y/N	EPA 8260B Haloethers	SM 2320B Alkalinity	SM 5310B TOC	ASTM D516,90,02 Sulfate	EPA 6010 Dissolved Metals (Fe, Mn)	EPA 6010 Total Metals (Fe, Mn)	RSK 175 Methane	EPA 300.0 Chloride	Residual Chlorine (Y/N)	Comments
1	TB-20170202	WT	G			02/02/17	0800		2				2															
2	INF-20170202	WT	G			02/02/17	1050		3				3						X									
3	EFF-20170202	WT	G			02/02/17	1115		3				3						X									
4	EFFMS-20170202	WT	G			02/02/17	1115		3				3						X									
5	EFFMSD-20170202	WT	G			02/02/17	1115		3				3						X									
6	EFFDUP-20170202	WT	G			02/02/17	1115		3				3						X									
7																												
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Andrés Colon / Arcadis	02/02/17	1330	[signature] - Pace	02/02/17	1330	Y or N
	FedEx	2-3-17	0940	[signature] - Pace	2-3-17	0940	2.1 Y Y Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Andrés Colon

SIGNATURE of SAMPLER: [signature]

DATE Signed: 02/02/17

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Y	Y	Y

WO# : 2049726

PM: CJM Due Date: 02/17/17
CLIENT: 20-CHEV-ARC

Pace Analytical

1000 Riverbend. Blvd., Suite F
St. Rose, LA 70087

Sample Condition Upon Recei

Project :

Courier: ☐ Pace Courier ☐ Hired Courier ☒ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC] **Custody Seals intact:** ☒Yes ☐No

Therometer Used: ☐ Therm Fisher IR 5 ☐ Therm Fisher IR 6 ☒ Therm Fisher IR 7

Type of Ice: (Wet) Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 2/16/17

Temp must be measured from Temperature blank when present

			Comments:
Temperature Blank Present"?	☒Yes	☐No ☐N/A	1
Chain of Custody Present:	☒Yes	☐No ☐N/A	2
Chain of Custody Complete:	☒Yes	☐No ☐N/A	3
Chain of Custody Relinquished:	☒Yes	☐No ☐N/A	4
Sampler Name & Signature on COC:	☒Yes	☐No ☐N/A	5
Samples Arrived within Hold Time:	☒Yes	☐No ☐N/A	6
Sufficient Volume:	☒Yes	☐No ☐N/A	7
Correct Containers Used:	☒Yes	☐No ☐N/A	8
Filtered vol. Rec. for Diss. tests	☒Yes	☐No ☐N/A	9
Sample Labels match COC:	☒Yes	☐No ☐N/A	10
All containers received within manafacture's precautionary and/or expiration dates.	☒Yes	☐No ☐N/A	11
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	☒Yes	☐No ☐N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	☒Yes	☐No ☐N/A	13 If No, was preserative added? ☐Yes ☐No If added record lot no.: HNO3
Headspace in VOA Vials (>6mm):	☐Yes	☒No ☐N/A	14
Trip Blank Present:	☐Yes	☒No	15

Client Notification/ Resolution:

Person Contacted: Da

Comments/ Resolution:

Attachment 3
Sampling and Monitoring Field Form

ARCADIS Design & Consultancy for natural and built assets

Groundwater Extraction and Treatment System (GWETS) Sampling and Monitoring Field Form
Fibers Public Supply Wells Superfund Site
Guayama, Puerto Rico

Collection Date	Sample ID	Collection Time	Sampler's Initials
02/02-17	TB-20170202	LAB	LAB
02-02-17	INF-20170202	1050	AC
02-02-17	EFF-20170202	1115	AC
02-02-17	EFF-DUP-20170202	1115	AC
02-02-17	EFFMS-20170202	1115	AC
02-02-17	EFFMSD-20170202	1115	AC

GWETS Operational Data at Sample Collection

Extraction Wells

RW-2	115.0	gpm
RW-4	165.0	gpm
RW-5	80.0	gpm

Compound Treatment System

Influent Flow Rate (FIT-101)	352.6	gpm
Effluent Flow Rate (FIT-301)	409.0	gpm
Blower (FIT-201A)	2190	cfm
Influent Flow Pressure (PIT-101)	2.6	psi
Effluent Flow Pressure (PIT-301)	20.8	psi
pH (pHIT-201A)	8.2	

Notes:
gpm = gallons per minute
cfm = cubic feet per minute
psi = pounds per square inch

2